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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,310	04/02/2001	William R. Brown JR.	OB-193	9388

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The Gillette Company  
Prudential Tower Building  
Boston, MA 02199

EXAMINER
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GUIDOTTI, LAURA COLE

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/824,310

Applicant(s)

BROWN ET AL.

Examiner

Laura C. Guidotti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 10-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Kressner, EP 0 765 642 (see also English Translation of Abstract).

Kressner discloses the claimed invention including a support member (6) and a plurality of tufts of bristles supported at their base by the support member (13, 15, 17), the support member having a substantially circular surface from which the tufts project (Figure 3), a first one of the tufts being tilted along an imaginary radius which projects from a center of the circular surface and passes through a base of the first tuft (in Figure 2, tufts "13" are tilted along an imaginary radius projecting from a center of the circular surface and passes through the base of the tuft), a second one of the tufts being tilted along an imaginary circumference which encircles the center of the circular surface and passes through a base of the second tuft (in Figure 3, the outer tufts "13" are tilted along an imaginary circumference encircling the center of the circular surface). A base of the first tuft is located closer to the center of the circular surface than a base of the second tuft (see Figures 2-3). The first and second tuft are tilted at different angles relative to the circular surface (see Figure 2-3).

***Claim Rejections - 35 USC § 103***

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1, 3-4, 15-16, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlucci et al., US D456,607 in view of Duey, USPN 1,901,230.

Carlucci et al. disclose the claimed invention including a support member that is circular in shape (see Figures, circular disk from which tufts extend) and a plurality of

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tufts of bristles supported at the base by the support member (see Figures), wherein at least one of the two tufts (two arbitrary outer tufts that are adjacent an outer periphery of the support member) has a cross-section which is other than round in shape (see Figure 2 tuft cross-sections). At least one of two tufts has a cross-section that is oval in shape (see Figure 2 tuft cross-sections). The plurality of tufts includes a third tuft that has a different cross-section than either of the two tufts (there are circular tufts and not as elongated oval tufts; see Figure 2). A first tuft has a different length than the second tuft (see Figures 1 and 3) and there is a third tuft having a different length than the first and second tufts (see Figures 1 and 3). The first tuft (outer peripheral oval shaped tuft) appears to have a different number of bristles than a second tuft (inner circular tuft, Figure 2). Carlucci et al. does not include two tufts being tilted away from each other at an acute angle relative to the support member, or more broadly, that a third tuft is tilted at an angle which is different from the angle of tilt of the first and second tufts.

Duey discloses a toothbrush head having a plurality of tufts of bristles (9) supported at their base by a circular support member (7; see Figure 2), wherein two tufts of bristles having their bases adjacent to each other (two tufts from the tufts adjacent the outer periphery) are tilted away from each other at an acute angle relative to the support member (see Figures) so that the tufts can reach into crevices between adjacent teeth when brushing (Page 2 Lines 6-25). The tufts are tilted in substantially the same *radial* direction relative to the support member (see Figures 2-3 particularly).

It would have been obvious for one of ordinary skill in the art to modify two adjacent tufts of bristles that are adjacent the outer periphery (two of the elongated oval

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shaped tufts) of the support of Carlucci et al. to be tilted away from each other at an acute angle relative to the support member, as Duey teaches, so that the toothbrush is better able to provide tufts that clean within crevices between teeth.

3. Claims 1, 3-5, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moskovich, USPN 5,628,082 in view of Sekine, USPN 2,155,245.

Moskovich discloses the claimed invention including a head having a support member (unlabeled, see Figures), a plurality of tufts of bristles (88, 80, 82, 86) supported at their base by the support member (see Figure 16), two of the tufts having their bases adjacent to each other (two adjacent tufts indicated, one being tuft "88" and the other being tuft "92" as shown in Figure 16), the two tufts being tilted away from each other at an acute angle relative to the support member (see Figure 16, gumline tuft "88" extends outwardly at an acute angle relative to the support), wherein at least one of the two tufts has a cross-section that is other than round in shape (88 is oval). One of the two tufts has a cross-section which is oval in shape (88). There is a third tuft having a different cross section than the other two tufts (86). The third tuft is also tilted at an acute angle relative to the support member (see Figure 16; Column 6 Lines 7-9). Also, the plurality of tufts of bristles includes a pair of tufts being tilted substantially in the same direction relative to the support member (90 and 92; Figure 16), a first tuft (90) of the pair having a different cross-section than the second tuft (92) of the pair (see Figure 16). The first tuft has a different length than the second tuft (Column 6 Lines 27-31). There is a third tuft tilted relative to the support member having a different length than the first and second tufts (either 86 or 88; see Figure 16). The first tuft (90) has a

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different number of bristles than the second tuft (92; see Figure 16). The third tuft (either 86 or 88) is tilted at an angle different from the angle of tile of the first and second tufts (first and second tufts are angled at 90 degrees, or perpendicular and the third tuft is clearly tilted acutely, as shown in Figure 16). Moskovich does not disclose a support member that is circular.

Sekine clearly teaches that toothbrush head support members may comprise of many shapes, circular (Figure 2), square (Figures 4-5), or hexagonal (Figure 6) and it appears that the as the toothbrush head support members change shapes, the tuft configurations adjust slightly while maintaining a desired tapered point configuration.

It would have been obvious for one of ordinary skill in the art to modify the toothbrush head support member of Moskovich by having the support member be circular, as Sekine teaches, as a circular support member is desirous for toothbrushes that clean teeth.

4. Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duey, USPN 1,901,230 in view of Moskovich, USPN 5,628,082.

Duey discloses all elements mentioned above including a toothbrush head having a plurality of tufts of bristles (9) supported at their base by a circular support member (7; see Figure 2), wherein two tufts of bristles having their bases adjacent to each other (two tufts from the tufts adjacent the outer periphery) are tilted away from each other at an acute angle relative to the support member (see Figures) so that the tufts can reach into crevices between adjacent teeth when brushing (Page 2 Lines 6-25). It is particularly noted that the tufts of bristles labeled as "9" are for cleaning

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crevices or recesses between adjacent teeth (Page 2 Lines 6-16). Duey does not disclose that at least one of the two tufts has a cross-section other than round in shape.

Moskovich teaches all elements above, further including outer gumline tufts (88) that are tilted away from each other at an acute angle relative to the support member (Figure 16) and that these outer gumline tufts have a cross-section that is other than round in shape (oval, see Figure 16; Column 6 Lines 12-19) in order to clean the gumline. There is a "third tuft" (86) that has a different cross section (one that is arc-shaped, Figure 16) and is tilted at an acute angle relative to the support member (Figure 16) in order to better cup around the tooth to be cleaned (Column 6 Lines 20-21).

It would have been obvious for one of ordinary skill in the art to modify the outer tilted tufts of Duey to have a tuft cross section that is oval in shape, as Moskovich teaches, in order to beneficially clean at the gumline surfaces adjacent the teeth and further it would have been obvious for one of ordinary skill in the art to substitute one of the outer tilted tufts of Duey for an arc-shaped tilted bristle tuft, as Moskovich also teaches, so that there is a tuft that acts to form a cup around a tooth to clean it effectively.

5. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kressner, EP 0 765 642 (see also English Translation of Abstract) as applied to claim 10, in view of Moskovich, USPN 5,628,082.

Kressner discloses all elements above, however does not disclose that one of the tufts has a cross-section that is oval in shape.



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Moskovich also discloses all elements above, particularly outer gumline tufts (88) that are tilted away from each other at an acute angle relative to the support member (Figure 16) and that these outer gumline tufts have a cross-section that is other than round in shape (oval, see Figure 16; Column 6 Lines 12-19) in order to clean the gumline.

It would have been obvious for one of ordinary skill in the art to modify at least one of the outer tilted tufts of Kressner to have a tuft cross section that is oval in shape, as Moskovich teaches, in order to beneficially clean at the gumline surfaces adjacent the teeth.

### ***Applicants Arguments***

6. In the response filed 23 January 2006, the Applicant contends that:

**A.** Carlucci et al. does not disclose tufts that are tilted relative to the support member.

**B.** The Examiner has not pointed out in either reference where there is a teaching or suggestion that would motivate one skilled in the art to modify the Carlucci disclosure in view of Duey. Carlucci relates to an electric toothbrush whereas Duey is directed at a manual toothbrush.

**C.** The toothbrush heads disclosed by Moskovich are not close to being circular in shape and the head is described as being narrow and thin for maximum access to the oral cavity. Also, not one of the bristle patterns shown by Moskovich would be put on a head that is circular in shape.

### ***Response to Arguments***

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7. Applicant's argument **A**, see above, filed 23 January 2006, with respect to the 35 USC 102(e) rejection(s) of claim(s) under Carlucci et al. have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

8. Applicant's arguments **B-C** filed 23 January 2006 have been fully considered but they are not persuasive.

**B.** Duey discloses a toothbrush that is manipulated by *rotary movement* (Page 1 Lines 1-5). Carlucci et al., while it is for an electrically powered toothbrush, also undergoes rotary movement (Title). Therefore, one of ordinary skill in the art would have found it obvious to modify two adjacent tufts of bristles that are adjacent the outer periphery (two of the elongated oval shaped tufts) of the support of Carlucci et al. to be tilted away from each other at an acute angle relative to the support member, as Duey teaches, so that the toothbrush is better able to provide tufts that clean within crevices between teeth (Page 2 Lines 6-25).

**C.** As stated above, Sekine teaches that toothbrush head support members may comprise of many shapes, circular (Figure 2), square (Figures 4-5), or hexagonal (Figure 6) and *it appears that the as the toothbrush head support members change shapes, the tuft configurations adjust slightly while maintaining a desired tapered point configuration*. While Moskovich is being described as thin and narrow to access teeth, the shape of the brush head support member does not determine its width. Although Moskovich employs toothbrush head support members that are not circular, it would have been obvious for one of ordinary skill in the art to modify the toothbrush head

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support member of Moskovich by having the support member be circular, as Sekine teaches, as a circular support member is desirous for toothbrushes that clean teeth.


**Conclusion**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Guidotti whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LCG  
LCG

  
GLADYS JP CORCORAN  
SUPERVISORY PATENT EXAMINER